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RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/080,839

DATE: 03/08/2002
TIME: 15:17:10

Input Set : A:\TSRI8131.SEQ.TXT
Output Set: N:\CRF3\03082002\J080839.raw

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    5        Wakasugi, Keisuke
    6        Friedlander, Martin
    8 <120> TITLE OF INVENTION: Tryptophanyl-tRNA Synthetase Derived
    9        Polypeptides Useful For The Regulation of Angiogenesis
   12 <130> FILE REFERENCE: TSRI-813.1
C--> 14 <140> CURRENT APPLICATION NUMBER: US/10/080,839
C--> 14 <141> CURRENT FILING DATE: 2002-02-22
   14 <150> PRIOR APPLICATION NUMBER: 60/270,951
   15 <151> PRIOR FILING DATE: 2001-02-23
   17 <160> NUMBER OF SEQ ID NOS: 13
   19 <170> SOFTWARE: FastSEQ for Windows Version 4.0
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   24 <213> ORGANISM: Artificial Sequence
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   27 <223> OTHER INFORMATION: Recombinant human trpRS
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   37      50                  55                  60
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   39 65                  70                  75                  80
   40 Glu Glu Asp Phe Val Asp Pro Trp Thr Val Gln Thr Ser Ser Ala Lys
   41              85                  90                  95
   42 Gly Ile Asp Tyr Asp Lys Leu Ile Val Arg Phe Gly Ser Ser Lys Ile
   43              100                 105                 110
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58 Cys Gly Phe Asp Ile Asn Lys Thr Phe Ile Phe Ser Asp Leu Asp Tyr
59 225                 230                 235                 240
60 Met Gly Met Ser Ser Gly Phe Tyr Lys Asn Val Val Lys Ile Gln Lys
61         245                 250                 255
62 His Val Thr Phe Asn Gln Val Lys Gly Ile Phe Gly Phe Thr Asp Ser
63         260                 265                 270
64 Asp Cys Ile Gly Lys Ile Ser Phe Pro Ala Ile Gln Ala Ala Pro Ser
65     275                 280                 285
66 Phe Ser Asn Ser Phe Pro Gln Ile Phe Arg Asp Arg Thr Asp Ile Gln
67     290                 295                 300
68 Cys Leu Ile Pro Cys Ala Ile Asp Gln Asp Pro Tyr Phe Arg Met Thr
69 305                 310                 315                 320
70 Arg Asp Val Ala Pro Arg Ile Gly Tyr Pro Lys Pro Ala Leu Leu His
71             325                 330                 335
72 Ser Thr Phe Phe Pro Ala Leu Gln Gly Ala Gln Thr Lys Met Ser Ala
73         340                 345                 350
74 Ser Asp Pro Asn Ser Ser Ile Phe Leu Thr Asp Thr Ala Lys Gln Ile
75     355                 360                 365
76 Lys Thr Lys Val Asn Lys His Ala Phe Ser Gly Gly Arg Asp Thr Ile
77     370                 375                 380
78 Glu Glu His Arg Gln Phe Gly Gly Asn Cys Asp Val Asp Val Ser Phe
79 385                 390                 395                 400
80 Met Tyr Leu Thr Phe Phe Leu Glu Asp Asp Asp Lys Leu Glu Gln Ile
81         405                 410                 415
82 Arg Lys Asp Tyr Thr Ser Gly Ala Met Leu Thr Gly Glu Leu Lys Lys
83         420                 425                 430
84 Ala Leu Ile Glu Val Leu Gln Pro Leu Ile Ala Glu His Gln Ala Arg
85     435                 440                 445
86 Arg Lys Glu Val Thr Asp Glu Ile Val Lys Glu Phe Met Thr Pro Arg
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108 ctttctcgcc acgttcgccg gctttccccg tcaagctcta aatcggggc tccctttagg 180
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111 ctttaatagt ggactcttgt tccaaactgg aacaacactc aaccctatct cggtctattc 360
112 ttttgattta taagggattt tgccgatttc ggcctattgg ttaaaaaatg agctgattta 420
113 acaaaaattt aacgcgaatt ttaacaaaat attaacgttt acaatttcag gtggcacttt 480
114 tcggggaaat gtgcgcggaa cccctatttg tttatttttc taaatacatt caaatatgta 540
115 tccgctcatg agacaataac cctgataaat gcttcaataa tattgaaaaa ggaagagtat 600
116 gagtattcaa catttccgtg tcgcccttat tccctttttt gcggcatttt gccttcctgt 660
117 ttttgctcac ccagaaacgc tggtgaaagt aaaagatgct gaagatcagt tgggtgcacg 720
118 agtgggttac atcgaactgg atctcaacag cggtaagatc cttgagagtt ttcgccccga 780
119 agaacgtttt ccaatgatga gcacttttaa agttctgcta tgtggcgcgg tattatcccg 840
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121 tgagtactca ccagtcacag aaaagcatct tacggatggc atgacagtaa gagaattatg 960
122 cagtgctgcc ataaccatga gtgataacac tgcggccaac ttacttctga caacgatcgg 1020
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131 aaaacttcat ttttaattta aaaggatcta ggtgaagatc ctttttgata atctcatgac 1560
132 caaaatccct taacgtgagt tttcgttcca ctgagcgtca gaccccgtag aaaagatcaa 1620
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136 ccaccacttc aagaactctg tagcaccgcc tacatacctc gctctgctaa tcctgttacc 1860
137 agtggctgct gccagtggcg ataagtcgtg tcttaccggg ttggactcaa gacgatagtt 1920
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154 tgataccgat gaaacgagag aggatgctca cgatacgggt tactgatgat gaacatgccc 2940
155 ggttactgga acgttgtgag ggtaaacaac tggcggtatg gatgcggcgg gaccagagaa 3000
156 aaatcactca gggtcaatgc cagcgcttcg ttaatacaga tgtaggtgtt ccacagggta 3060
157 gccagcagca tcctgcgatg cagatccgga acataatggt gcagggcgct gacttccgcg 3120
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160 cagtaaggca accccgccag cctagccggg tcctcaacga caggagcacg atcatgcgca 3300
161 cccgtggcca ggacccaacg ctgcccgaga tctcgatccc gcgaaattaa tacgactcac 3360
162 tatagggaga ccacaacggt ttccctctag aaataatttt gtttaacttt aagaaggaga 3420
163 tatacat atg agc tac aaa gct gcc gcg ggg gag gat tac aag gct gac    3469
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168 Cys Pro Pro Gly Asn Pro Ala Pro Thr Ser Asn His Gly Pro Asp Ala
169  15                  20                  25                  30
171 aca gaa gct gaa gag gat ttt gtg gac cca tgg aca gta cag aca agc    3565
172 Thr Glu Ala Glu Glu Asp Phe Val Asp Pro Trp Thr Val Gln Thr Ser
173                  35                  40                  45
175 agt gca aaa ggc ata gac tac gat aag ctc att gtt cgg ttt gga agt    3613
176 Ser Ala Lys Gly Ile Asp Tyr Asp Lys Leu Ile Val Arg Phe Gly Ser
177                  50                  55                  60
179 agt aaa att gac aaa gag cta ata aac cga ata gag aga gcc acc ggc    3661
180 Ser Lys Ile Asp Lys Glu Leu Ile Asn Arg Ile Glu Arg Ala Thr Gly
181                  65                  70                  75
183 caa aga cca cac cac ttc ctg cgc aga ggc atc ttc ttc tca cac aga    3709
184 Gln Arg Pro His His Phe Leu Arg Arg Gly Ile Phe Phe Ser His Arg
185          80                  85                  90
187 gat atg aat cag gtt ctt gat gcc tat gaa aat aag aag cca ttt tat    3757
188 Asp Met Asn Gln Val Leu Asp Ala Tyr Glu Asn Lys Lys Pro Phe Tyr
189  95                  100                 105                 110
191 ctg tac acg ggc cgg ggc ccc tct tct gaa gca atg cat gta ggt cac    3805
192 Leu Tyr Thr Gly Arg Gly Pro Ser Ser Glu Ala Met His Val Gly His
193                  115                 120                 125
195 ctc att cca ttt att ttc aca aag tgg ctc cag gat gta ttt aac gtg    3853
196 Leu Ile Pro Phe Ile Phe Thr Lys Trp Leu Gln Asp Val Phe Asn Val
197                  130                 135                 140
199 ccc ttg gtc atc cag atg acg gat gac gag aag tat ctg tgg aag gac    3901
200 Pro Leu Val Ile Gln Met Thr Asp Asp Glu Lys Tyr Leu Trp Lys Asp
201                  145                 150                 155
203 ctg acc ctg gac cag gcc tat ggc gat gct gtt gag aat gcc aag gac    3949
204 Leu Thr Leu Asp Gln Ala Tyr Gly Asp Ala Val Glu Asn Ala Lys Asp
205          160                 165                 170
207 atc atc gcc tgt ggc ttt gac atc aac aag act ttc ata ttc tct gac    3997
208 Ile Ile Ala Cys Gly Phe Asp Ile Asn Lys Thr Phe Ile Phe Ser Asp
209 175                 180                 185                 190
211 ctg gac tac atg ggg atg agc tca ggt ttc tac aaa aat gtg gtg aag    4045
212 Leu Asp Tyr Met Gly Met Ser Ser Gly Phe Tyr Lys Asn Val Val Lys
213                  195                 200                 205
215 att caa aag cat gtt acc ttc aac caa gtg aaa ggc att ttc ggc ttc    4093
216 Ile Gln Lys His Val Thr Phe Asn Gln Val Lys Gly Ile Phe Gly Phe
217                  210                 215                 220
219 act gac agc gac tgc att ggg aag atc agt ttt cct gcc atc cag gct    4141
220 Thr Asp Ser Asp Cys Ile Gly Lys Ile Ser Phe Pro Ala Ile Gln Ala
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224 Ala Pro Ser Phe Ser Asn Ser Phe Pro Gln Ile Phe Arg Asp Arg Thr
225     240                 245                 250
227 gat atc cag tgc ctt atc cca tgt gcc att gac cag gat cct tac ttt    4237
228 Asp Ile Gln Cys Leu Ile Pro Cys Ala Ile Asp Gln Asp Pro Tyr Phe
229 255                 260                 265                 270
231 aga atg aca agg gac gtc gcc ccc agg atc ggc tat cct aaa cca gcc    4285
232 Arg Met Thr Arg Asp Val Ala Pro Arg Ile Gly Tyr Pro Lys Pro Ala
233                 275                 280                 285
235 ctg ttg cac tcc acc ttc ttc cca gcc ctg cag ggc gcc cag acc aaa    4333
236 Leu Leu His Ser Thr Phe Phe Pro Ala Leu Gln Gly Ala Gln Thr Lys
237             290                 295                 300
239 atg agt gcc agc gac cca aac tcc tcc atc ttc ctc acc gac acg gcc    4381
240 Met Ser Ala Ser Asp Pro Asn Ser Ser Ile Phe Leu Thr Asp Thr Ala
241         305                 310                 315
243 aag cag atc aaa acc aag gtc aat aag cat gcg ttt tct gga ggg aga    4429
244 Lys Gln Ile Lys Thr Lys Val Asn Lys His Ala Phe Ser Gly Gly Arg
245     320                 325                 330
247 gac acc atc gag gag cac agg cag ttt ggg ggc aac tgt gat gtg gac    4477
248 Asp Thr Ile Glu Glu His Arg Gln Phe Gly Gly Asn Cys Asp Val Asp
249 335                 340                 345                 350
251 gtg tct ttc atg tac ctg acc ttc ttc ctc gag gac gac gac aag ctc    4525
252 Val Ser Phe Met Tyr Leu Thr Phe Phe Leu Glu Asp Asp Asp Lys Leu
253             355                 360                 365
255 gag cag atc agg aag gat tac acc agc gga gcc atg ctc acc ggt gag    4573
256 Glu Gln Ile Arg Lys Asp Tyr Thr Ser Gly Ala Met Leu Thr Gly Glu
257             370                 375                 380
259 ctc aag aag gca ctc ata gag gtt ctg cag ccc ttg atc gca gag cac    4621
260 Leu Lys Lys Ala Leu Ile Glu Val Leu Gln Pro Leu Ile Ala Glu His
261         385                 390                 395
263 cag gcc cgg cgc aag gag gtc acg gat gag ata gtg aaa gag ttc atg    4669
264 Gln Ala Arg Arg Lys Glu Val Thr Asp Glu Ile Val Lys Glu Phe Met
265     400                 405                 410
267 act ccc cgg aag ctg tcc ttc gac ttt cag aag ctt gcg gcc gca ctc    4717
268 Thr Pro Arg Lys Leu Ser Phe Asp Phe Gln Lys Leu Ala Ala Ala Leu
269 415                 420                 425                 430
271 gag cac cac cac cac cac cac tgagatccgg ctgctaacaa agcccgaaag    4768
272 Glu His His His His His His
273                 435
275 gaagctgagt tggctgctgc caccgctgag caataactag cataacccct tggggcctct 4828
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284 <223> OTHER INFORMATION: human mini TrpRS in pET20B
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VERIFICATION SUMMARY
PATENT APPLICATION: US/10/080,839

DATE: 03/08/2002
TIME: 15:17:11

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L:14 M:270 C: Current Application Number differs, Replaced Current Application No
L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date